Complete Summary

GUIDELINE TITLE

A new product (VariZIG™) for postexposure prophylaxis of varicella available under an investigational new drug application expanded access protocol.

BIBLIOGRAPHIC SOURCE(S)

A new product (VariZIG) for postexposure prophylaxis of varicella available under an investigational new drug application expanded access protocol. MMWR Morb Mortal Wkly Rep 2006 Mar 3;55(8):209-10. [2 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Varicella (chicken pox)

GUIDELINE CATEGORY

Prevention

CLINICAL SPECIALTY

Family Practice
Infectious Diseases
Internal Medicine

Obstetrics and Gynecology
Pediatrics

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

To provide recommendations for the use of VariZIG as postexposure prophylaxis for varicella

TARGET POPULATION

Patients without evidence of immunity to varicella (i.e., without history of disease or age-appropriate vaccination) who are at high risk for severe disease and complications, who have been exposed to varicella

The patient groups recommended by Advisory Committee on Immunization Practices (ACIP) to receive VariZIG include the following:

- Immunocompromised patients
- Neonates whose mothers have signs and symptoms of varicella around the time of delivery (i.e., 5 days before to 2 days after)
- Premature infants born at $\geq$28 weeks of gestation who are exposed during the neonatal period and whose mothers do not have evidence of immunity
- Premature infants born at <28 weeks of gestation or who weigh $\leq$1,000 g at birth and were exposed during the neonatal period, regardless of maternal history of varicella disease or vaccination
- Pregnant women

INTERVENTIONS AND PRACTICES CONSIDERED

1. VariZIG
2. Varicella vaccine
3. Immune globulin intravenous (IGIV)
4. Antiviral therapy if signs of varicella disease occur

MAJOR OUTCOMES CONSIDERED

Incidence of varicella

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Not stated

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not applicable

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

On October 27, 2004, the Advisory Committee on Immunization Practices (ACIP) was informed by the only U.S.-licensed manufacturer of varicella zoster immune globulin (VZIG) (Massachusetts Public Health Biologic Laboratories, Boston, Massachusetts) that the company had discontinued production of VZIG. The supply of the licensed VZIG product is now nearly depleted. In February 2006, an investigational (not licensed) VZIG product, VariZIG™ (Cangene Corporation, Winnipeg, Canada) became available under an investigational new drug application (IND) submitted to the Food and Drug Administration (FDA) (available at http://www.fda.gov/cber/infosheets/mphvzig020806.htm). This product can be requested from the sole authorized U.S. distributor, FFF Enterprises (Temecula, California), for patients who have been exposed to varicella and who are at increased risk for severe disease and complications.

The investigational VariZIG, similar to licensed VZIG, is a purified human immune globulin preparation made from plasma containing high levels of anti-varicella antibodies (immunoglobulin class G [IgG]). Unlike the previous product, the investigational product is lyophilized. When properly reconstituted, VariZIG is approximately a 5% solution of IgG that can be administered intramuscularly. As with any product used under IND, patients must be informed of potential risks and benefits and must give informed consent before receiving the product.

Indications for Use of Investigational VariZIG

Patients without evidence of immunity to varicella (i.e., without history of disease or age-appropriate vaccination) who are at high risk for severe disease and complications, who have been exposed to varicella, and from whom informed consent has been obtained, are eligible to receive the Investigational New Drug (IND) application product under an expanded access protocol. The patient groups recommended by Advisory Committee on Immunization Practices (ACIP) to receive VariZIG include the following:

- Immunocompromised patients
- Neonates whose mothers have signs and symptoms of varicella around the time of delivery (i.e., 5 days before to 2 days after)
- Premature infants born at $\geq$28 weeks of gestation who are exposed during the neonatal period and whose mothers do not have evidence of immunity
- Premature infants born at <28 weeks of gestation or who weigh $\leq$1,000 g at birth and were exposed during the neonatal period, regardless of maternal history of varicella disease or vaccination
- Pregnant women

Varicella vaccine was recommended in 1999 for postexposure prophylaxis of other persons without evidence of varicella immunity and who have no contraindications to vaccination. The vaccine should be administered preferably within 96 hours and possibly up to 120 hours postexposure. If illness occurs, with or without postexposure vaccination, antiviral treatment (e.g., acyclovir) can be considered for adolescents and adults.

Administration

Investigational VariZIG is expected to provide maximum benefit when administered as soon as possible after exposure, although it can be effective if administered as late as 96 hours after exposure; treatment after 96 hours is of uncertain value. VariZIG should be administered intramuscularly as directed by the manufacturer.

When indicated, health-care providers should make every effort to obtain and administer VariZIG. In situations in which administration of VariZIG does not appear possible within 96 hours of exposure, administration of immune globulin intravenous (IGIV) should be considered as an alternative. IGIV should also be administered within 96 hours of exposure. Although licensed IGIV preparations are known to contain anti-varicella antibody titers, the titer of any specific lot of IGIV that might be available is uncertain because IGIV is not routinely tested for anti-varicella antibodies. The recommended IGIV dose for postexposure prophylaxis of varicella is 400 mg/kg, administered once. For pregnant women who cannot receive VariZIG within 96 hours of exposure, clinicians may choose either to administer IGIV or closely monitor the women for signs and symptoms of varicella and institute treatment with acyclovir if illness occurs.

Dosage

Investigational VariZIG is supplied in 125-U vials. The recommended dose is 125 units/10 kg body weight, up to a maximum of 625 units (five vials). The minimum dose is 125 U.

Interval Between Administration of VariZIG and Varicella Vaccine

Any patient who receives investigational VariZIG to prevent varicella subsequently should receive varicella vaccine, provided the vaccine is not contraindicated. Varicella vaccination should be delayed until 5 months after VariZIG administration. Varicella vaccine is not needed if the patient has varicella after administration of VariZIG.

Antiviral Therapy

Any patient who receives investigational VariZIG should be observed closely for signs or symptoms of varicella for 28 days after exposure because VariZIG might prolong the incubation period by $\geq$1 week. Antiviral therapy should be instituted immediately if signs or symptoms of varicella disease occur. The route and duration of antiviral therapy should be determined by specific host factors, extent of infection, and initial response to therapy.

See the original guideline document for information on how to obtain investigational VariZIG.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not specifically stated.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Prevention of severe disease and complications due to varicella

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

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- Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.
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IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2006 Mar 3

GUIDELINE DEVELOPER(S)

Centers for Disease Control and Prevention - Federal Government Agency [U.S.]

SOURCE(S) OF FUNDING

United States Government

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the Centers for Disease Control and Prevention (CDC) Web site.

Print copies: Available from the Centers for Disease Control and Prevention, MMWR, Atlanta, GA 30333. Additional copies can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325; (202) 783-3238.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

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